

# A GUIDE TO HEALTHY HOUSEHOLD CLEANERS

Easy, effective and  
inexpensive recipes and tips  
for healthy home cleaning  
and maintenance.

*Dakota*  
COUNTY



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# WHY HEALTHY HOUSEHOLD CLEANERS?

We come into contact with chemicals every day: at work and at home. According to the U.S. Environmental Protection Agency (EPA), of the more than 75,000 registered chemicals, only a fraction have been tested for human health effects.

Improper use and disposal of these chemicals can have a negative effect on our health and the water we rely upon for drinking, bathing, cleaning and recreation.

In the United States, we generate 1.6 million tons of harmful household chemicals, known as household hazardous waste. The average home can accumulate as much as 300 pounds of household hazardous waste in the basement, garage, and in storage areas over time.

## So why not make simple changes at home to decrease exposure to those chemicals?

This guide contains easy, effective and inexpensive recipes and tips for home cleaning and maintenance. The cleaners are safe for you and the environment and can save you money.



**TAKE A LOOK  
INSIDE AND START  
CREATING A  
HEALTHIER HOME.**  

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**HELP CARE FOR THE  
PLACE YOU LIVE.**

Reading the labels on items you use in and around your home and yard can tell you a lot about the product and its possible health effects.

### Signal words

Caution, warning, danger and poison tell you that the product may have negative health effects. Caution means there is a mild harm while poison signals a highly toxic product. Flammable, ignitable, corrosive, toxic or irritant describe the particular danger a product poses.

**Become a label reader**

Look out for words on labels and choose the least hazardous product.

<b>Less toxic</b> ↑ <b>More toxic</b>	<b>Caution</b>	mild/moderate
	<b>Warning</b>	moderate hazard
	<b>Danger</b>	extremely flammable corrosive or highly toxic
	<b>Poison</b>	highly toxic

*Source: Minnesota Pollution Control Agency*

### Did you know

#### Proper disposal tips

Improper disposal of household chemicals can harm the water we depend on for drinking and recreation. Help keep those resources clean by following these simple rules for disposal.

#### **Keep it out of the drains and storm sewers and off the ground.**

Chemicals disposed of through these methods can pollute surrounding rivers and lakes.

#### **Keep it out of the trash.**

Hazardous products can cause a problem for waste haulers and waste facilities.

#### **Bring it to The Recycling Zone.**

The Recycling Zone accepts household chemicals for free from residents (see back cover).

## The Toolkit—Six basic ingredients

The ingredients below serve as the building blocks for many safe home cleaning needs. They are inexpensive and can be found in your home or at the grocery store. Always remember to label any homemade cleaner to identify what it is and when it was made, and to store it out of reach of children.

### Baking soda

Cleans and deodorizes. Softens water to increase the sudsing and cleaning power of soap. Good scouring powder. Baking soda is an abrasive cleaner; Avoid use on aluminum.

### Borax

Cleans and deodorizes. Excellent disinfectant. Softens water. Inhibits mold. Look for it in the laundry section.

### Plant-based liquid soap

Such as olive oil-based. Biodegrades safely and completely and is non-toxic. Choose soaps without synthetic scents, colors or other additives.

### Washing soda

Cuts grease and removes stains. Disinfects. Softens water. Look for it in the laundry section. Washing soda is an abrasive cleaner; Avoid using on fiberglass, aluminum, no wax or wax floors, or delicate fabrics.

### White vinegar or lemon juice

Cuts grease and freshens. Vinegar is a mild acid; Avoid use on stone and use with care on tile and grout—spot test first for discoloration.

### Vegetable oil

Such as olive oil or food-grade linseed oil. Polishes and cleans wood. Freshens.

### *Disclaimer*

The information and cleaning options provided herein are meant to be a guide. Use cleaners for their intended use. Do not mix cleaners. Always test a formula first in an inconspicuous place. It is recommended that you wear gloves while mixing and using cleaners. Dakota County is not responsible for any damages, losses or injuries incurred as a result of the information provided herein.

You don't need to use a different product for every cleaning project. There are multi-purpose products that can handle a wide variety of cleaning tasks. Many of these products cost less too.

**If you have this:****Then you may not need this:**

<b>Vinegar</b>	→	Coffee pot cleaner
	→	Copper cleaner
	→	Glass cleaner
	→	Floor cleaner
	→	Stain remover
<b>Soap and water</b>	→	Plant insecticide
	→	Plastic cleaner
	→	Stain remover
<b>Washing soda</b>	→	Drain cleaner
	→	Household detergent
	→	Water softener
<b>All-purpose cleaner</b>	→	Tub and tile cleaner
	→	Oven cleaner
<b>Baking soda</b>	→	Scouring powder
	→	Deodorizer
	→	Stain remover
	→	Tub and tile cleaner
<b>Steel wool scouring pads</b>	→	Aluminum cleaner
	→	Rust remover
	→	Stainless steel cleaner

## ▣ All-purpose cleaners

### Option 1

- \* 4 tablespoons baking soda
- \* 1 quart warm water

Dissolve baking soda in water. Apply with sponge. Wipe clean.

### Option 2

- \* 1 teaspoon plant oil-based liquid soap
- \* 1 quart warm water
- \* A squeeze of lemon

Combine ingredients in a small bucket.

Apply with a sponge or rag. Wipe clean.

### Option 3

- \* 1/8 cup washing soda
- \* 1 tablespoon plant oil-based liquid soap
- \* 1/4 cup vinegar
- \* 2 gallons hot water

Mix ingredients in a pail.

Apply with cloth. Wipe clean. (Apply to floors with a mop.)

### Option 4

- \* 3 tablespoons washing soda
- \* 1 quart warm water

Mix ingredients in a small pail.

Apply with sponge or rag. Wipe clean.

### *Tip*

Stock your cleaning kit with reusable and washable cleaning supplies such as rags, sponges and spray bottles. Choose cellulose sponges, which are not anti-bacterial. Label each container clearly.



## ▣ Drain cleaner

### Option 1

- \* 1/2 cup baking soda

- \* 3 cups boiling water

Pour baking soda down the drain. Add boiling water.

Let rest 10-15 minutes. Rinse with warm water.

### Option 2

- \* 1/2 cup baking soda

- \* 1/2 cup vinegar or lemon juice

Pour baking soda down the drain. Add vinegar or lemon juice.

Let rest 10-15 minutes. Rinse with hot water.

### *Tip*

Repeat this process every month to keep drains clean!

## ▣ Grease cutter

- \* 1/2 teaspoon washing soda

- \* 1/4 to 1/2 teaspoon plant-based liquid soap

- \* 3 tablespoons vinegar

- \* 2 cups hot water

Mix ingredients in a spray bottle.

Spray and wash. Wipe clean.

## ▣ Pot and pan cleaner

- \* 3 tablespoons baking soda

- \* Dash of salt

- \* Water

Mix ingredients to form a paste.

Dip a sponge into paste and rub onto the metal.

Let dry. Rinse with hot water.



## ▣ Mold and mildew control

- \* 1/2 cup borax
- \* 1 gallon hot water

Mix solution and apply to desired area to inhibit mold and mildew. Do not rinse.

### *Tip*

To avoid clogging spray bottles, completely dissolve washing soda, baking soda and borax with hot water.

## ▣ Oven cleaner

- \* 1 teaspoon each of plant-based liquid soap, borax, lemon juice, and vinegar
- \* 1 quart warm water

Mix and apply. Let sit 30 minutes. Scrub and rinse clean.

### *Tip*

Become a label reader when looking for home products. Find those that are phosphate-free, biodegradable, non-toxic, and that contain plant-based ingredients. These are better for you and for the environment.



## ▣ Tile and linoleum floors

### Option 1

- \* 1 cup vinegar
- \* 1 gallon hot water

Mix and apply. Wipe clean.

### Option 2

- \* 1-2 teaspoons plant-based liquid soap
- \* 3 gallons hot water

Mix and apply.

Rinse with 1 cup vinegar in 3 gallons cold water.

## ▣ Wood floors

### Option 1

- \* 1/8 cup plant-based liquid soap
- \* 1 gallon water

Mix and apply. Wipe clean.

### Option 2

- \* 1/2 cup vinegar
- \* 1 gallon hot water

Mix and apply. Wipe clean.

## ▣ No wax floors

- \* 1/2 cup vinegar
- \* 2 tablespoons plant-based liquid soap
- \* 1 gallon hot water

Mix and apply. Wipe clean.



## ▣ Carpet deodorizer

- \* Baking soda

Sprinkle baking soda over carpet and let rest overnight.

Vacuum.

## ▣ Carpet Stain Remover

### Option 1

- \* Club soda

Apply to stain. Blot clean.

### Option 2

- \* 1/4 cup vinegar

- \* 1/4 cup water

Mix and apply. Rinse with water.

### Option 3

- \* Baking soda, corn starch or borax

- \* Club soda

Blot immediately.

Sprinkle with baking soda, corn starch or borax.

Let dry. Wash with club soda.

## *Remember*

Hardwood, laminate, bamboo and linoleum can be damaged if excessive water is left on them after cleaning. Make sure to wipe floors dry.



## ▣ Tub and tile cleaner

### Option 1

- \* 1/2 teaspoon washing soda
- \* 1/4 to 1/2 teaspoon plant-based liquid soap
- \* 3 tablespoons vinegar
- \* 2 cups hot water

Mix ingredients in a spray bottle or pail.

Apply and wipe clean.

### Option 2

- \* Baking soda
- \* Water

Sprinkle baking soda on surface.

Scrub with a damp sponge.

Rinse well with warm water.

### Option 3

- \* Baking soda
- \* Vinegar

Sprinkle baking soda on a sponge.

Add vinegar and apply. Rinse.

## ▣ Rust remover

- \* Salt
- \* Lime

Sprinkle salt on rust and squeeze lime over salt.

Let sit one hour or longer, depending on amount of rust.

Scrub and rinse clean.



## ▣ Toilet bowl cleaner

### Option 1

- \* Baking soda

Sprinkle baking soda in and around toilet bowl.

Let sit for a few minutes. Scrub clean.

### Option 2

- \* 1/4 cup baking soda

- \* 1 cup vinegar

Mix and pour into basin. Let sit for a few minutes.

Brush, then flush.

## ▣ Scouring powder

- \* 1 cup baking soda

- \* 1/4 cup vinegar

Mix. Apply with damp sponge.

Let stand for a few minutes. Rinse well.

## ▣ Soft scrubber

- \* 1/4 cup baking soda

- \* Plant-based liquid soap

Mix ingredients to form a paste.

Apply with sponge. Wipe clean.



### *Remember*

Before cleaning the toilet with baking soda or vinegar, remove any bleaching or cleaning product from the inside of the toilet bowl or toilet tank. Mixing these products can cause harmful fumes.

## ▣ Laundry starch

- \* 1 tablespoon cornstarch
- \* 1 pint cold water

Place in spray bottle and shake to dissolve cornstarch. Apply.

## ▣ Laundry bleach and stain remover

### Option 1

- \* 1/4 cup lemon juice

Add directly to medium-sized load.

### Option 2

- \* 1/4 cup borax
- \* 2 cups cold water

Soak stain in mixture prior to washing.

## ▣ For blood

- \* 3 percent hydrogen peroxide solution

Put solution directly on the stain.

Rinse with cold water, then wash.

## ▣ For ink

- \* Lemon juice
- \* Cream of tartar

Mix ingredients to form a paste.

Apply to stain, allow to dry, and wash.

## ▣ For red wine

- \* Salt
- \* Cold water
- \* Plant-based liquid laundry detergent

Apply cold water to stain immediately. Blot with cloth.

Cover with salt to absorb liquid. Let sit two-three minutes.

Rinse with cold water while rubbing out stain. Repeat process until no more stain is removed. Rub stain with liquid laundry soap.

Let stand several minutes. Wash according to directions.

## ▣ Glass cleaner

### Option 1

- \* 1/4 to 1/2 teaspoon plant-based liquid soap
- \* 3 tablespoons vinegar
- \* 2 cups water

Mix and spray. Wipe clean.

### Option 2

- \* 3 tablespoons cornstarch
- \* 1/2 cup water

Mix ingredients in a small bowl.

Apply with cotton cloth and wipe clean.

Wipe until film disappears.

### *Did you know*

Air inside our homes is often more polluted than the air outside.

We spend up to 90 percent of our time indoors; therefore the risk of experiencing negative health effects from air pollution is greater indoors than outdoors.

The healthy household options included here will reduce your chemical exposure at home.



## ▣ For wood

### Option 1

- \* 1/8 cup food-grade linseed oil
- \* 1/8 cup vinegar
- \* 1/4 cup lemon juice

Mix ingredients.

Apply with soft cloth.

### Option 2

- \* 1/4 cup olive oil
- \* 1/8 cup lemon juice

Mix and apply a thin coating. Rub well with cloth.



## ▣ For leather

- \* 1/4 cup olive oil
- \* A few drops of lemon oil

Mix ingredients. Saturate cloth and apply. Rub well.

### *Tip*

Buy food-grade linseed oil from a grocery or health food store, not the hardware store, for use in home cleaning. Linseed oil sold at hardware stores is often petroleum-based.

## ▣ General fresheners

### Option 1

- \* 2 tablespoons baking soda

Place in a dish and leave on the counter.

### Option 2

- \* Citrus (lemon, grapefruit or orange)
- \* Water

Place slices of your favorite fruit in a pot. Add enough water to cover fruit. Simmer uncovered over low heat for an hour or two.

### Option 3

- \* Cinnamon and cloves
- \* Water

Simmer uncovered in a pot of water.

### Option 4

- \* Potpourri

Make your own from your favorite herbs and spices.

## ▣ Kitchen and cooking odors

### Option 1

- \* Pure vanilla extract

Place pure vanilla extract on a cotton ball in a small saucer.

Place where needed. NOTE: Pure vanilla extract contains alcohol and should be kept away from children.

### Option 2

- \* Baking soda

Place an open box of baking soda in the refrigerator or freezer to eliminate odors.



## ▣ Chrome cleaners

### Option 1

- \* 3 tablespoons baking soda
- \* Water

Mix and apply. Rinse.

### Option 2

- \* 1/8 cup cider vinegar

Saturate a sponge with vinegar. Rub and rinse.

## ▣ Aluminum cleaners

### Option 1

- \* 2-3 lemons cut in half or 1 grapefruit cut four ways
- \* Water

Put citrus and water in the tarnished pan and stew on low heat for an hour.

### Option 2

- \* 2 tablespoons cream of tartar
- \* Vinegar (enough to make a paste)

Mix ingredients to make a stiff paste. Rub on metal and let dry.

Wash paste off with hot water and dry with a cloth.



## ▣ Brass and copper cleaner

### Option 1

- \* Flour (enough to make a paste)
- \* 1/2 teaspoon salt
- \* 1/2 cup vinegar

Mix ingredients to make a stiff paste. Rub onto the brass with water.

Dry with a cloth dampened with a little vegetable oil.

### Option 2

- \* Vinegar
- \* Lemon juice
- \* Salt

Mix equal parts vinegar and lemon juice with salt, enough to make a paste. Apply with a soft cloth. Rinse and dry. Rub with olive oil to maintain.

## ▣ Silver cleaner

### Option 1

- \* 1 tablespoon salt
- \* 1 tablespoon baking soda
- \* A few sheets of aluminum foil
- \* Water

Put foil in the bottom of a big pan. Add two-three inches of water (enough to cover the silver). Add baking soda and salt.

Bring to boil. Add silver pieces and boil two-three minutes.

Remove from pan. Rinse well and dry.

### Option 2

- \* Toothpaste

To clean off tarnish, coat silver with toothpaste.

Run under warm water and work into a lather. Rinse.



## ▣ Stainless steel cleaner

### Option 1

- \* 3 tablespoons baking soda
- \* Water

Mix ingredients to make a paste.

Apply with green scouring pad.

Rinse well to remove all residue.

### Option 2

- \* Vinegar

Saturate a sponge with vinegar.

Rub the metal.

Rinse and polish with a soft cloth.

### Option 3

- \* Olive oil or club soda

Rub with a sponge dampened in olive oil or club soda to remove streaks or stains.



### *Tip*

Disinfect sponges by boiling them in water for five minutes or microwaving wet sponges on high for one minute. Running sponges through the dishwasher will not completely disinfect them. Run scrub brushes through the dishwasher to disinfect.

## ▣ Moths

### Option 1

- \* Cedar chips (aromatic)
- \* Cheesecloth

Wrap cedar chips in cheesecloth. Place where clothes are stored.

### Option 2

- \* Dried lavender or equal parts of dried rosemary and dried mint.
- Place dried herbs in location where clothes are stored.

## ▣ Ants

### Option 1

- \* Dried bay leaves

Crumble and place in doorways and window sills.

### Option 2

- \* 1 part vinegar
- \* 1 part water

Mix and apply to counter tops.

### Option 3

- \* Lemon

Squeeze lemon juice in the hole or crack where ants enter.  
Place peeling around the entrance.

## ▣ Houseflies

### Option 1

- \* Citrus
- \* Cloves

Scratch the skin of an orange or other citrus fruit and leave out.

Hang with a cluster of cloves.

### Option 2

- \* Mint or basil

Mint planted around the home repels flies.

A pot of basil on a table or window sill repels flies.



### *Did you know*

According to the U.S. Environmental Protection Agency, 75 percent of all households have used at least one pesticide indoors in the past year. Measureable levels of more than a dozen pesticides have been found in the air inside homes. Reduce exposure by using these alternatives. Bring leftover pesticides to The Recycling Zone (see back cover).



## ▣ Silverfish

- \* 1 part molasses

- \* 2 parts vinegar

Mix ingredients and place near problem area.

## ▣ Cockroaches

### Option 1

- \* Powdered sugar

- \* Baking soda

Mix equal parts and sprinkle where cockroaches live.

### Option 2

- \* Catnip

Place small sachets of catnip in areas of cockroach activity.

OR

Simmer catnip in small amount of water to make a “catnip tea.”

Apply with spray bottle to baseboards and behind counters.

## ▣ Mosquitoes

### Option 1

- \* Citronella candles

Burning citronella candles repels mosquitoes. Burn outdoors only.

### Option 2

- \* Basil

Basil planted around the house repels mosquitoes.

### Option 3

- \* Bat roosts or houses

Bats are one of the best predators of insects. Providing bat roosts or houses helps control mosquitoes and other insects.



### ▣ Car soap

- \* 1/4 cup plant-based liquid soap
- \* Warm water

Mix in a pail and apply. Rinse.

#### *Tip*

Wash the car on the lawn to prevent soap and pollutants on the car from entering storm drains and nearby lakes and streams.

### ▣ Chrome cleaner

- \* 1/4 cup baking soda
- \* Water

Mix to form a paste and apply with sponge. Rinse well with warm water.

### ▣ Vinyl cleaner

- \* 1 teaspoon to 1/4 cup washing soda
- \* 1 cup boiling water

Dissolve the washing soda completely in the boiling water. Apply and rinse. The more washing soda, the more rinsing is required.

### ▣ Tar remover

- \* Food-grade linseed oil

Wet rag with linseed oil and rub.

#### *Tip*

Road salt and grime can eat away at your car's underbelly. Prevent this by choosing an option at the car wash that cleans underneath your car.

### ▣ Car wax

- \* 1 cup food-grade linseed oil
- \* 4 tablespoons carnauba wax
- \* 2 tablespoons beeswax
- \* 1/2 cup vinegar

Put ingredients in top half of a double boiler (set over water) or saucepan. Heat slowly until wax has melted. Stir. Pour into a heat-resistant container. After mixture has solidified, remove from container and rub onto the car. Saturate a corner of a cotton rag with vinegar and polish the wax to a shine.

### *Did you know*

#### **Car care tips**

The way we maintain our car has a big impact on how much our vehicle pollutes and how much of an impact we have on our environment.

Here are some easy ways to ensure our cars are running efficiently.

#### **Keep tires properly inflated.**

Underinflated tires decrease gas mileage and shorten tire life. Bring old tires to The Recycling Zone (see back cover).

#### **Change your oil per manufacturer recommendations.**

Clean oil helps the engine run better. Bring used oil & oil filters to The Recycling Zone. (see back cover).

#### **Replace dirty air filters.**

Dirty air filters decrease gas mileage.

#### **Fix leaks.**

Fluids drain from your car into storm sewers and pollute water.

#### **Wash your car on the lawn.**

It prevents soaps and other pollutants from getting into the storm drains, which leads to ground and surface water pollution.



## ▣ Lawn fertilizer

- \* Grass Clippings

Leave grass clippings on the lawn. They provide nutrients equal to one fertilizer application per season.

## ▣ Dandelion control

- \* Long-handled weed fork

Dig out 4 to 5 inches of the root before they bloom.

### *Did you know*

#### **Yard care tips**

It has been estimated that an average acre of a well-maintained urban lawn receives five to seven pounds of pesticides per year. These pesticides can pollute our water.

Here are some yard-care tips to decrease pesticide use.

#### **Use compost.**

Organic fertilizers like compost contain no additional phosphorus or nitrogen.

#### **Test your soil.**

Your lawn only absorbs the nutrients it needs; excess nutrients run-off into our water. Each lawn is different, so test your soil to determine its nutrient needs.

#### **Go native.**

Native plants are conditioned to live in Minnesota's climate. Therefore, they need less watering and less fertilizers.

#### **Don't cut lawns too short.**

Cutting your lawn too short makes your grass more vulnerable to weeds.

▣ **Paint thinner**

- \* Water

Water is a paint thinner for latex paint.

▣ **Paint brush renewer (for latex paint)**

- \* Hot vinegar

Soften hard paint brushes in hot vinegar for 10 minutes.

Wash in warm soapy water and let dry.

*Did you know*

### Painting tips

For each person in the United States, an average of two gallons of paint is sold each year. The Recycling Zone takes in on average over 50,000 gallons of paint each year.

Here are some tips for environmentally-friendly paint use.

#### **Use low or no VOC paint.**

Volatile organic compounds (VOCs) are emitted as gases from many household products. They can cause eye, nose and throat irritation as well as liver, kidney and nervous system damage.

#### **Buy only what you need.**

Buying only the amount of paint you need decreases how much gets wasted. Ask the salesperson to help you determine how much you need for the job.

#### **Donate or exchange your paint.**

Community groups, organizations and even neighbors may be able to use your leftover paint.

#### **Bring it to The Recycling Zone.**

Leftover paint should never be poured down the drain, the storm sewer, or placed in the trash. Bring it to The Recycling Zone for recycling or reuse (see back cover).

Place empty, dry paint cans in the trash.



From fluorescent bulbs and electronics to paint and yard chemicals, The Recycling Zone is Dakota County's place for residents to bring household items that do not belong in the trash.

## ► Location

The Recycling Zone  
3365 Dodd Road  
Eagan, MN  
651-905-4520



## Hours

The Recycling Zone is open four days a week and is located on the west side of Dodd Road just north of Yankee Doodle Road in Eagan.

### Recycling hours:

Sun.–Tues.: Closed  
Wed.: 9 a.m.–8 p.m.  
Thurs.: noon–8 p.m.  
Fri.: 9 a.m.–5 p.m.  
Sat.: 8 a.m.–5 p.m.

### Household chemicals drop-off hours:

Sun.–Tues.: Closed  
Wed.: 3 - 8 p.m.  
Thurs.: noon - 5 p.m.  
Fri.: Closed  
Sat.: 9 a.m. - 2 p.m.

## ► Additional services

### Aluminum can redemption

Bring in your cans, and we'll pay you for them.

### Compost bin sales

Buy your backyard compost bin. It fits in any car.

### Free stuff

Usable household chemicals and paint are free for the taking.

### Lead sinker exchange

Exchange your lead tackle for a free sample of a non-lead alternative.

**For reuse & disposal options for other household products**

**[www.dakotacounty.us](http://www.dakotacounty.us) search Green Guide**

